

**AMENDMENTS TO THE CLAIMS**

**This listing of claims will replace all prior versions and listings of claims in the application:**

**LISTING OF CLAIMS:**

**1-12. (canceled).**

**13. (currently amended):** An isolated immunogenic, non-haemolytic *Actinobacillus pleuropneumoniae* (*App*) strain comprising at least one mutation in a transmembrane domain-encoding segment of the *apxIA* gene wherein the segment of the *apxIA* gene corresponds to nucleotides 886 to 945, nucleotides 697 to 759, or nucleotides 1105 to 1215 of SEQ ID NO. 1, and ~~optionally~~with or without at least one mutation in a transmembrane domain-encoding segment of the *apxIIA* gene, wherein the ~~transmembrane domain-encoding segment in each *apxIA* gene and of the *apxIIA* gene~~ corresponds ~~either~~ to nucleotides 886 to 945, ~~to~~ nucleotides 697 to 759, or ~~to~~ nucleotides 1105 to 1215 of SEQ ID NO. 2.

**14. (previously presented):** The strain of Claim 13, wherein said mutation is a deletion.

**15. (previously presented):** The strain of Claim 14, wherein said deletion is in a region of the *apxIA* gene which encodes a second transmembrane domain of the *App* ApxI exotoxin.

**16. (currently amended):** The strain of Claim 15, wherein said deletion is of nucleotides 886 to 945 of ~~the *apxIA* gene~~ SEQ ID NO. 1.

**17. (previously presented):** The strain of Claim 16, wherein, said strain additionally comprises a deletion in a region of the *apxIIA* gene which encodes a second transmembrane domain of the *App* ApxII exotoxin.

**18. (withdrawn-currently amended):** The strain of Claim 17, wherein said deletion is of nucleotides 886 to 945 of ~~the *apxIIA* gene~~ SEQ ID NO. 2.

**19. (previously presented):** A vaccine composition against porcine pleuropneumonia comprising an immunogenically effective amount of the *Actinobacillus pleuropneumoniae* strain of Claim 13, and a pharmaceutically acceptable carrier, wherein the porcine pleuropneumoniae is caused by *Actinobacillus pleuropneumoniae*.

**20. (withdrawn):** An immunogenic and non-haemolytic strain of *Actinobacillus pleuropneumonia* having the characteristics of that deposited in the Colección Española de Cultivos Tipo under registration number CECT 5985, or a mutant thereof.

**21. (withdrawn):** A vaccine composition against porcine pleuropneumoniae comprising an immunogenically effective amount of the *Actinobacillus pleuropneumoniae* of Claim 20; and a pharmaceutically acceptable carrier.

**22. (withdrawn):** An immunogenic and non-haemolytic strain of *Actinobacillus pleuropneumoniae* having the characteristics of that deposited in the Colección Española de Cultivos Tipo under registration number CECT 5994, or a mutant thereof.

**23. (withdrawn):** A vaccine composition against porcine pleuropneumonia comprising an immunogenically effective amount of the *Actinobacillus pleuropneumoniae* of Claim 22, and a pharmaceutically acceptable carrier.

**24. (withdrawn-currently amended):** A method for obtaining an immunogenic, non-haemolytic *Actinobacillus pleuropneumoniae* (*App*) strain comprising introducing at least one mutation in a transmembrane domain-encoding segment ~~at least one region~~ of the *apxIA* gene, wherein the segment of the *apxIA* gene corresponds to nucleotides 886 to 945, nucleotides 697 to 759, or nucleotides 1105 to 1215 of SEQ ID NO. 1, of said strain, and optionally with or without ~~in~~ at least one mutation in a transmembrane domain-encoding segment ~~region~~ of the *apxIIA* gene of said strain, ~~wherein each region encodes a transmembrane domain of the Apx haemolytic and cytolytic exotoxins, and wherein the transmembrane domain-encoding region in each *apxIA* gene and segment of the *apxIIA* gene corresponds either to nucleotides 886 to 945, to nucleotides 697 to 759, or to nucleotides 1105 to 1215 of SEQ ID NO. 2.~~

**25. (withdrawn):** The method of Claim 24, wherein said mutation is a deletion.

**26. (withdrawn):** The method of Claim 25, wherein said deletion is in a region of the *apxIA* gene which encodes a second transmembrane domain of the *App* ApxI exotoxin.

**27. (withdrawn-currently amended):** The method of Claim 26, wherein said deletion is of nucleotides 886 to 945 of the ~~*apxIA* gene~~ SEQ ID NO. 1.

**28. (withdrawn):** The method of Claim 27, wherein said method additionally comprises introducing a deletion in a region of the *apxIIA* gene which encodes a second transmembrane domain of the *App* ApxII exotoxin.

**29. (withdrawn-currently amended):** The method of Claim 28, wherein said deletion is of nucleotides 886 to 945 of the ~~*apxIIA* gene~~ SEQ ID NO. 2.